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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kang Soo Seo

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EXAMINER

SHELEHEDA, JAMES R

ART UNIT

PAPER NUMBER

2623

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/876,793	Applicant(s) SEO ET AL.	
	Examiner James Sheleheda	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22, 25-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22, 25-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/26/07 have been fully considered but are not persuasive.

On pages 5-8, of applicant's response, applicant argues that the "still picture or character image" is recorded on the disk as a full size image and not a thumb-nail image.

In response, Takahashi specifically discloses wherein the "still picture or a character image" *is* the representative reduced picture (column 12, lines 7-11). Thus, the still picture is not recorded as a full image and then reduced later as applicant suggests, as the still image is created as the representative reduced image. This is further indicated in column 12, lines 32-35 and lines 57-62, wherein the still picture or character image are displayed *as* the representative reduced pictures. There is no mention of reducing the still picture to generate the representative reduced pictures.

This difference can be further seen in the description of the picture array in embodiment two.

Takahashi indicates that the picture array links the representative reduced pictures to the address information for the stream they represent (column 6, line 34-column 7, line 24). Thus, upon selection of the appropriate reduced image, the corresponding stream can be output.

In the fifth embodiment disclosed by Takahashi, relied upon in the rejections, Takahashi specifically discloses wherein the still picture or character image is linked to the video streams within the picture array (column 12, lines 20-23 and 49-56). Thus, the stored still picture or character image constitutes the reduced representative image discussed in embodiment two.

Finally, it is noted that Takahashi discloses wherein the picture array displaying program is specifically modified from embodiment two so as to allow the proper usage of this fifth embodiment (column 12, lines 24-31 and 38-44). This is further seen in S47 of Fig. 4, which specifically discloses that the "reducing" step applies to the first reproduced image in the stream to create the representative reduced image (Fig. 4; column 6, lines 34-43). Thus, as a separate still image has been provided as the representative reduced image, the first picture of the reproduced stream, and its corresponding reducing step, are no longer required in this later embodiment.

Thus, applicant's arguments are not persuasive.

In response to applicant's arguments on pages 9-10, that the phrase "recorded on a disk" clearly refers to "still picture or character image" as opposed to the "representative reduced picture", see above wherein it is clearly indicated that the "still picture or character image" is the representative reduced picture.

Thus, Takahashi clearly discloses a menu data area storing one or more thumbnail pictures (hard disk storing the still images; column 12, lines 7-11) and a menu management area (in the hard disk; column 9, lines 32-51) storing menu management

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information (table linking thumbnails to the corresponding video streams; column 9, lines 32-51).

In response to applicant's arguments on pages 9-10, that the "still picture or character image" is not a thumbnail image, see above. The "reducing" step does not apply to embodiment five, as this embodiment provides separate still images which are already "representative reduced images" or thumbnails. The reducing step, which applied to the particular creation of the reduced images from the reproduced video, would not apply, as the provided "still picture or character image" are **not** created from the start of the reproduced video.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 20, 21, 25-27 and 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al. (Takahashi) (6,483,983) (of record).

As to Claim 20, Takahashi et al disclose a recording medium having a data structure for managing reproduction of a picture array (i.e., indexed thumbnails

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representing scenes stored on the hard-disk; Col. 2, Ln. 32-54; Col. 9, Ln. 8-51 and col. 12, lines 7-62). Moreover, it is inherent the picture array data representing scenes be some form of "blocked" data. Accordingly, Takahashi et al anticipate each and every limitation of Claim 20.

Claims 30-32 correspond to Claim 20. Thus, each is analyzed and rejected as previously discussed. (**Note:** the "driver" and "controller" components of Claim 31 are disclosed at Col. 3, Ln. 63-Col. 4, Ln. 33).

As to Claim 21, Takahashi further teaches the reduced pictures (i.e., thumbnails) displayed in the array correspond to scenes on the DVD. (citations of Claim 1). Accordingly, Takahashi et al anticipate each and every limitation of Claim 21.

As to Claim 25, it is inherent the DVD of Takahashi indicate the number of reduced pictures stored in the array. When the array data is stored on the DVD, there must be some form of information which reflects the number of reduced pictures stored on said DVD. Accordingly, Takahashi et al anticipate each and every limitation of Claim 25.

As to Claim 26, Takahashi further teaches the use of "head indexing," a well-known technique in video reproduction. Head indexing is a process by which addresses are attached to various frames in a data stream, thereby providing quick access to

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desired frames (i.e., the reduced pictures) in the picture array. (Col. 1, Ln. 27-44).

Although Takahashi appears to only teach a starting address of a frame displayed in the array, this address would, in essence, be a starting and ending address since a "frame" is a defined point (i.e., beginning and end) in the data stream. Following this logic, it would be inherent that the addresses (i.e., frames) indicate the number of frames stored on the DVD. Accordingly, Takahashi et al anticipate each and every limitation of Claim 26.

As to Claim 27, since each frame (i.e., thumbnail) in the array has a corresponding address identifier, it is inherent the array include said starting addresses. Accordingly, Takahashi et al anticipate each and every limitation of Claim 27.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al in view of Chen et al. (Chen) (5,917,830) (of record).

Claim 22 recites the medium of claim 21, wherein the menu data area records padding data between at least two of the blocks of menu data. As discussed above, Takahashi et al anticipate each and every limitation of claim 21, but fail to disclose the

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limitation of claim 22. However, within the same field of endeavor, Chen et al disclose a similar system wherein null packets are inserted (i.e., appended) into the video stream for the purpose of preventing buffer overload. (Abstract; Col. 2, Ln. 40-54). The exact placement of such null packets is obvious and a matter of simple design choice.

Accordingly, it would have been obvious to one of ordinary skill in this art at the time of Applicant's invention to combine the systems of Takahashi and Chen in order to prevent RAM buffer overload through utilizing null data packets appended to each menu picture data.

The limitations of Claim 28 are combinations of limitations from Claims 21 and 22. Thus, it is analyzed and rejected as discussed therein.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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on _____
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Typed or printed name of person signing this certificate:

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Signature: _____

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James Sheleheda
Patent Examiner
Art Unit 2623

JS


SCOTT E. BELIVEAU
PRIMARY PATENT EXAMINER